DOCUMENT RESUME

ED 271 892 EA 018 689

AUTHOR Dick, Walter
TITLE An Analysis of a Sample of the Learner Verification and Revision Reports Submitted to the Florida Department of Education in 1985-86.
PUB DATE Apr 86
NOTE 23p.; Paper presented at the Annual Meeting of the American Educational Research Association (67th, San Francisco, CA, April 16-20, 1986).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Educational Improvement; Educational Policy; Elementary Secondary Education; Evaluation Methods; *Publishing Industry; State Legislation; Student Needs; *Student Reaction; *Textbook Evaluation; *Textbook Publication
IDENTIFIERS *Florida

ABSTRACT

This study examines a sample of reports submitted by publishers to the Florida Department of Education for school textbook revisions to be adopted during 1985-86. The study determines (1) state Learner Verification and Revision (LVR) procedures used by publishers, (2) problems reflected in the reports, and (3) recommendations on the conduct and reporting of the LVR process. A sample of LVR reports submitted was examined for compliance with state guidelines requiring publishers to test materials with students before and after publication. Data analysis led to the following results: (1) reports made little use of goal statements with objectives and test items, (2) most data were collected from teachers' observations of students in classrooms, and (3) reports had minimized discussion of student testing or other direct measures of text effectiveness. Student performance is, therefore, not the driving force for textbook revision. Recommendations are as follows: (1) publishers should include data collected directly from students, (2) publishers should indicate the link between data collected and revisions to be made, and (3) training workshops for publishers should be provided by the department of education. If publishers do not adopt the recommendations, they should be required to provide proof that each text is effective with learners. (CJH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED271892

An Analysis of a Sample of the Learner Verification and Revision Reports Submitted to the Florida Department of Education in 1985-86[1]

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Walter Dick

Florida State University

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Walter Dick
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

INTRODUCTION

Each year the state of Florida adopts several hundred textbooks for use in public school classrooms. As a part of the adoption process, the Legislature has required publishers to demonstrate that they have tried out the textbooks with students and have used this information to revise, and hopefully, improve their books. Publishers are also required to describe how they will continue to collect data after adoption in order to improve any subsequent editions of their texts. The Learner Verification and Revision (LVR) Process, as it is referred to in the legislation, is the process "of data gathering and analysis by which a publisher of curriculum material has improved the instructional effectiveness of that product before it reaches the market and then continues to gather data from learners in order to improve the quality and reliability of that material during its full market life" (Florida Statute 233.25).

The LVR legislation initially was passed in 1974 and subsequently revised in 1981. In recent years the Florida Department of Education has made renewed efforts to streamline

EA 018 689

1. Paper presented at the American Educational Research Association convention in San Francisco, April,1986.

the reporting requirements associated with this legislation. Likewise the state-wide textbook selection committees have increased the criticalness of their reviews of these reports.

The rationale underlying the LVR process is that textbooks can always be improved on the basis of feedback from students about the difficulties they have had using the text. The original advocate of the LVR process, Komoski, pointed to research that indicated that a text could be significantly improved on the basis of feedback from only one student (1971). Now LVR, or formative evaluation as it is also referred to, is a standard procedure employed by instructional designers in indusrty and the armed services, but less frequently among authors of public school and college texts.

The major purpose of this study was to examine a sample of the reports submitted by publishers to the Florida Department of Education for texts to be adopted during 1985-86 to determine (a) the general LVR procedures being used by publishers, (b) problems reflected in the reports, and (c) recommendations to publishers and the Florida Department of Education on the conduct and reporting on the LVR process.

Procedures Used to Analyze Reports

By August 1, 1985, all publishers had submitted LVR reports for any texts that were to be considered for adoption during the 1985-86 academic year. Table 1 indicates the 11 content areas in which texts were selected, the number of books submitted in each area, and the number of different publishers that had texts in each area. There were 356 reports submitted by 42 different

publishers.

Since this was the initial examination of these reports, no attempt was made to analyze all of them. Instead, the following procedure was followed. First, a sample of reports from the physical science area was reviewed to test out the analysis and data coding system that had been developed. After the coding procedure was revised, the reports for the biological science texts were examined in depth and summary analyses made. Certain patterns of findings emerged. Then, reports for the world social studies texts were analyzed and additional summary data tallied.

Subsequent to these formal analyses, additional reports from the other content areas were reviewed for consistency with the major findings which had already been identified. Therefore, the selection of reports which were reviewed can best be described as a non-random, stratified sample. Science and social studies reports were specifically selected because of their prominance in the curriculum and because most major publishers were represented in these content areas.

In the sections that follow, each component of the LVR report is described briefly and then a series of questions posed and answered with regard to the responses provided by the publishers. The results of the analysis of the biological science text reports are presented first, followed by the results of the analysis of the world social studies reports. The implications of these findings are discussed and recommendations made for future changes in the conduct and reporting of LVR activities.

RESULTS

The results of the analysis of the biological sciences submissions are presented in approximately the same sections as are required in the DOE report format. The sections in the report are:

1. Intended learner outcomes
2. Overview of LVR process used
    a. Observations
    b. Interviews
    c. Questionnaires/surveys
    d. Assessments
3. List of data gathering instruments
4. Selected examples of revisions
5. Ongoing LVR plan

For each section there is a brief description of what the publishers were to describe, an indication of any special codeing or evaluation criteria which were applied to the publishers' responses, a summary of the information submitted, and any observations about the data that seem appropriate.

Intended Learner Outcomes

The publishers were asked to list any three goals from their textbook. For each goal they were to list two objectives which describe what the learner is expected to be able to do as a result of using the materials. For each objective, two test items or assessments which correlate with the objective were to

be listed.

Two types of analysis were conducted. The first was a determination of the presence or absence of the goals, objectives and test items. The second was an evaluation of the objectives in terms of the inclusion of conditions, criteria, and behaviors, and evaluation of the test items in terms of their match with the objectives.

The results of the analysis of goals, objectives and test items, and all subsequent analyses, are reported in terms of answers to questions. For example, were three goals stated for each text? All but one publisher submitted the required number of goal statements. However, two publishers indicated their own goals for presenting information, not goals for the student. Did they provide objectives and corresponding test items? Yes, again all but one of the 14 publishers provided both.

What was the quality of the objectives that were submitted? None of the publisher wrote the typical Magerian objective with conditions and criteria for performance along with the description of what the learner would be able to do. All but one of the publishers included only descriptions of student behaviors. The remaining publisher submitted the table of contents as the objectives.

Could the test items be used to assess the objectives with which they were associated? Eight of the 14 publishers submitted items that exactly matched the objectives. In some of the other submissions there was a content match, but the performance described in the objective was being forced into an inappropriate multiple-choice format. For only three of the publishers was

there serious question about the quality of the items.

The purpose of the first section of the publishers' reports was to demonstrate the relationship among goals, objectives, and test items associated with each text. Given this relationship, it would be possible for publishers to use student test data to identify objectives that were not being achieved, and to revise the corresponding parts of the instruction. While the listings of goals, objectives, and test items were most encouraging, subsequent sections of the reports made almost no reference to this information. It is almost as though this page had nothing to do with the rest of the LVR report.

Data Gathering Procedures and Resulting Revisions

In the next section of the report, the publishers were asked to describe their use of the following methods of collecting LVR data: observations, interviews, questionnaires/surveys, and assessments. In each instance, the publisher was asked to indicate who was involved in collecting the data and the characteristics of the students who participated. They were also asked to describe the revision decisions which were made on the basis of this information.

In the review of the publishers' responses to this section, specific note was made of which types of data collection methods were used and approximately how many teachers and/or students were involved. An attempt was also made to classify the types of revisions that were made into the following catagories: (a) addition or deletion of specific content, (b) changes in the physical appearance of the text, (c) changes to bring about

better racial, sexual, or geographical balance to the text, (d) changes in instructional design features such as objectives, tests, and reviews, and (e) indications that data were collected but no revisions were made.

To what extent were the various procedures used? The most popular method of data collection was observation of students. Eighty-six percent of the publishers used this method. Interviews were used by 64% of the publishers as were surveys/questionnaires. Only 43% of the publishers used assessments from students to revise their texts.

What types of students were involved in the various data collection procedures? Almost without exception, the publishers used multi-ethnic and multi-ability students in all phases of the data collection.

Who was responsible for conducting the observations of students using the text materials? There appeared to be two approaches to doing the observations. One approach was to ask the teacher who was using the text with the students to report to the publisher on his/her "observations" of the students use of the text. The second approach was for an agent of the publisher to visit the classroom while the teacher conducted class. These observers were often sales people, but sometimes included the authors and editors of the text.

What types of revisions were made as a result of the observations? Nearly all of the revisions fell into two catagories. Either major changes were made through the addition, deletion, or reorganization of the content, or through the

Addition of objectives, test items, and questions in the text. It was seldom made clear to the reader exactly how the observations of students led to the revisions that were reported.

Who did the interviews and whom did they interview? The same array of people who observed the classes also tended to conduct the interviews. While the DOE Guidelines strongly suggest that data should be collected from student interviews, in the great majority of the cases, the publishers' agents interviewed the teachers who were asked to represent the views of the students, as well as present their own perceptions of the text. The revisions that were reported as a result of the interviews were usually similar, and sometimes identical, to those which were reported for observations. Again, it was often difficult to link the information about the interviews with the revisions which were reported.

Who responded to the questionnaires and surveys used by the publishers? With very few exceptions, it was teachers who filled out the questionnaires and surveys. In some instances, formal questionnaires were developed and administered to the teachers who participated in a field trial of the text. In other cases, publishers reported the results of market surveys which were sent to hundreds of teachers who were using a previous edition of the text, or simply to a sample of biology teachers regardless of the text they were currently using. The revisions, reportedly based on the analysis of the questionnaire/survey data were again very similar to those reported for interviews and observations, namely content and instructional design modifications. However, for

over half of the publishers who reported using this mode of data collection, it was almost impossible to determine what changes were made.

What types of assessment instruments were used by the publishers? Of the six publishers who reported using tests as one means of gathering data, only two, or 14% of all publishers indicated that they used criterion or objective-referenced test items. Thus, at best, only these two publishers were in a position to relate test performance to specific revisions in their texts.

What revisions were made as a result of the data from the assessment instruments? It was difficult to find a report which clearly indicated how test data were used to determine the need for revisions. In some cases revisions were reported that had nothing to do with the testing, while in other cases it was simply unclear how the assessment data were used.

How many people were involved in these various data gathering activities? The highest numbers all came from one publisher who reported observations of 6,306 students, interviews involving 4,000 students (it must be inferred that there were interviews with teachers who had 4,000 students), and tests were administered to 4000 students. Another publisher reported surveying 1500 teachers. The median number of participants in each catagory was 310 students observed, 42 teachers interviewed, 130 teachers surveyed, and 468 students tested. It must be noted that only four of the 14 publishers reported using all four methods of data collection. As indicated above, nearly all used observations, while very few used student

assessments.

The analysis of these procedures suggests that the publishing companies are relying on existing methods and procedures for obtaining the data required for the DOE report. Publishers routinely have salespeople in the field who visit the classrooms of adopters, observe the students, and interview the teachers. This information is incorporated into a report which goes to the editorial offices of the publisher. Some of this information appears to influence the next revision of the text.

The visiting salesperson approach provides very little, if any, data directly from learners other than observing their behavior in the classroom (which may have little to do with the text). The publishers do not typically use questionnaires or criterion-referenced tests to get data from students either. The surveys are usually marketing oriented and filled out by teachers. Test data simply are not used other than by the local teacher who gets an impression of what the students are learning. The teacher passes this along, in a not too systematic manner, to the publishers.

These observations raise a major question as to the existence of differences in the methods used by publishers with totally new texts as opposed to texts that have been on the market for several years and are to be revised. The predominate procedures described in the previous sections above are those which would be employed after an adopted text was being used in the field. What about the procedures publishers use with brand new texts?

Of the 14 biology LVR reports which were reviewed in this portion of the analysis, seven were first editions and seven were revisions to texts which were in use in the schools. The first editions had copyright dates ranging from 1980 to 1986. The revised texts carried 1985 or 1986 copyright dates on texts that previously had been copyrighted in 1981 to 1983. The first edition of one text had been copyrighted in 1921!

There were some differences in the uses of the various approaches. Observations and interviews were used by 100% and 86% respectively of the publishers with revised texts. Only 71% used observations and 57% used interviews with first editions. While only 43% of the publishers with revisions reported using questionnaire/survey data, 86% of publishers with new texts did. Testing was twice as likely to occur with revised texts (57%) as with new ones (29%). One must be cautious with the interpretations of the percentages because they are based on such a small sample.

Revisions to Texts and Plans for Future LVR's

In the final sections of the report, the publishers were to display changes made to their texts and to describe how they will conduct LVR's after their text is adopted implemented in classrooms. The sample revisions were displayed along with the original pages which they replaced. For purposes of this review, the revisions were rated in terms of their consistency with data presented elsewhere in the publisher's report, and in terms of the likelihood of the change effecting student learning. Similarily, the plans for follow-up LVR were rated in terms of the likelihood that, if the plan were executed as described, it would produce data that are useful in the revision process.

Were the revisions consistent with other information presented in the report? In 12 of the 14 reports, the revisions that were included were consistent with the descriptions of the types of revisions which had been made to the text. In every case, it is reasonable to predict that the changes would lead to enhanced student learning--either directly through the addition of practice activities or indirectly through the addition of motivational material. It should be noted that only sample revisions were included in the reports and thus, it is impossible to judge the possible impact of all revisions.

What activites were included in the plans for post-adoption LVR's and how likely is it that the plans will produce the desired data? The plans for future LVR's usually reflected the procedures used to collect the data that were presented in the report. That is, the publishers indicated that salespersons would continue to visit classroom to observe students and to

discuss the text with teachers. The results of these visits would be reported to the home office where a file would be developed for use by the next revisions team. Unsolicited letters from users would also be filled. In addition marketing surveys would be sent to many teachers to determine the changes they think are needed in the text they are using. In several isolated proposals, it was stated that authors and editors would visit the classrooms and that student assessment data would be collected.

How effective will the plans be? Only two of the reports were given the highest rating. It was judged that these plans would produce the data from students that are needed to make the most necessary revisions. The remaining proposals were rated as possibly producing data that would be helpful for revision purposes. On the whole, the reports did not include student testing, only classroom observations and interviews with teachers.

General Evaluation of Biology Reports and Directions for Further Analysis of Other Reports

After the publishers' reports had been reviewed and evaluated on the basis of the individual components, another review was conducted to give an overall assessment of their quality. A grading scale of A to F was created with fairly well defined points of judgement along the scale. For a report to receive a grade of A, it had to be responsive to the guidelines, and use student performance data to drive the

revisions. B reports were those which, while similar to the A reports, did not use student data very effectively. For a report to receive a C, it had to include data from several sources which had some impact on the revision of the text. D reports were ones which reflected little data to influence the revision process. The failing reports on this scale, the F's, were ones which appeared to reflect little effort to meet the guidelines and appeared to have been written after-the-fact when no real LVR had taken place.

The distribution of grades for the reports, when this grading scale was applied is shown below:

	A	A-	B+	B	B-	C	D	F
Number of Reports			1	3	3	2	2	3
Percent of Reports			7%	21	21	14	14	21

This "grade distribution" indicates that none of the reports met the standards for an A and that more that 20% of the reports (3) did not, in the reviewer's opinion, meet the minimum standards for a Florida LVR report. From another perspective, about half of the reports reflected a reasonable attempt to use data from several sources to influence revisions, while the other half were not very convincing in this regard.

Of primary concern in the review of the Biology reports was the collection of data from students. To what extent was any hard data and information obtained from students, as opposed to discussions with teachers or responses to questionnaires or surveys from teachers? Is it, in fact, valid to observe students in a classroom and then make inferences about the

textbook? In some situations this may be a perfectly valid approach, but with others it would seem impossible to make any conclusions about revisions based upon the observation of interactions of teachers and students.

Based on these questions, the biology reports were again reviewed to determine to what extent students had been involved in the LVR activities. For each of the four data collection methods, an analysis was conducted to identify how many involved students. This was not a simple matter because a number of the reports were so vaguely worded that one could only infer who was involved in some of the data collection activities. The data below represent the percent of reports that it was fair to assume collected data from students via each of the four methods:

Observations	9 of 14	64%
Interviews	5 of 14	36%
Quest/Surveys	5 of 14	36%
Assessments	4 of 14	29%

Since these data gathering techniques are at the heart of the LVR process, an attempt was made to cross check the representativeness of these percentages in another content area. Therefore, the area of world social studies was selected for additional analysis. Nineteen publishers had entered books on the history and geography of the world for state adoption. The publishers ranged from the largest to some very small ones. Of the 19 reports reviewed, 8 were for first editions, while the

remaining 11 were for revisions.

The 19 reports were analyzed to determine the extent to which students were involved in the four different types of data collection efforts. The numbers and percentages are shown below:

Observations	12 of 19	63%
Interviews	9 of 19	47%
Quest/Surveys	6 of 19	32%
Assessments	7 of 19	37%

Comparison of these percentages with those obtained from the review of the biology reports indicates that they are very similar. All of the differences were 11% or less. Therefore, it can be tentatively concluded from this sample that the percentages of student participation in the various data collection procedures varies from about 2/3's of the reports, including observations of students in the classroom, to about 1/3 participating in interviews or answering questionnaires,surveys or tests.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

A sample of 14 LVR reports submitted by publishers in support of their applications for state adoption in the area of biology were examined for compliance with the state's guidelines. Subsequently 19 more reports on the Learner Verification and Revision of texts in world history and geography were examined. For a number of the sections of the report, it was of interest to determine what type of information would be submitted by the publishers. In certain cases it was possible to establish fairly

specific criteria which could then be used to rate the quality of the reports.

The analyses of the reports indicated the following:

1. While most of the publishers could provide goal statements with related objectives and test items, there was little evidence in the reports of the use of this relationship in the revision process.

2. The most frequently used method of collecting data was the observation of students in classrooms. The publishers often depended on teachers' observations of students. Some, however, sent sales representatives, and at times, editors and authors, to visit the classrooms.

3. Teachers also were often the data source for interviews and questionnaires. They were asked their own opinions and their perceptions of the students' reactions to the textbook. Only a few publishers explicitly stated that they interviewed students or provided them with questionnaires to complete.

4. It was quite rare to find a publisher who used criterion-referenced test items to determine where the students were having difficulty with the text and thereby identifying areas which should be considered for revision.

5. While it was not always clear what problem had led to the sample revisions which were submitted by the publishers, an inspection of the revised pages suggested that the revisions would, in fact, either directly or indirectly, improve students' learning.

6. Most publishers proposed to use current procedures

in the fulfillment of their obligations for post-adoption LVR. They will depend on site visits by salespersons, letters from teachers and standard marketing surveys to produce the information they will need for the next revison. Seldom was there any discussion of student testing or the use of any other direct measures of the effectiveness of the text.

7. It appears that when a text which is a 2nd or later edition is put up for adoption, publishers reported the use of the relatively standard procedures described in 6, above. For new texts, the procedures varied from proper use of student field trial data to the gathering of no data at all.

Those who are familiar with the programmed instruction roots of the LVR process know that the original intent of Komoski and others who supported the LVR legislation was to require publishers to try out their materials with students prior to publication and to provide post-publication evaluations with students as well. There is some informal evidence to suggest that at least some of the legislators who voted for the LVR bill thought they were requiring publishers to <u>prove</u> that their textbooks were effective. They believed they were voting for a summative evaluation process, not a formative one. From this perspective, the publishers have gotten a break in that all they have been required to do is to report on and display the revisions they have made based on student input.

The publishers have now had 10 years to implement and formatively evaluate their LVR procedures. This analysis of a

sample of the reports on their use of the process was quite disappointing. It is quite clear that student performance is not the driving force for the revision of the textbooks. A number of publishers offered no evidence of collecting any data from students other than observing them in the classroom and talking with their teachers. While such procedures are of some value, they do not yield any direct measures of what is working and what is not. In essence, the publishers are ignoring the systems approach to the design of instruction which has matured as a textbook development process over the last 20 years. The systems approach includes LVR as one of its integral components.

Based on the results of this preliminary study, the following recomendations can be made:

1. The guidelines which are provided to publishers should state that they must include data and information collected directly from students, as well as any other sources they wish to use.

2. The guidelines which are provided to publishers should indicate that they must indicate the link between the data they collected and the revisions they made to the texts. Vague or unsupported statements should not be accepted.

3. A quality control check of the reports should be conducted by the Department of Education prior to submitting the reports to the textbook councils. Any publisher who does not submitt a professionally responsive report should be excluded from further consideration in the textbook adoption process.

4. Training workshops should be provided periodically by the Department of Education to inform publishers of the

procedures and standards which they expect to be included in the LVR reports.

5. Publishers should accept the role of the student in the textbook development process by adopting a systematic development procedure to be employed by authors and other agents who have contracts to develop materials for the publisher.

6. Publishers should provide authors with training in the application of the LVR process to early drafts of the instructional materials. LVR does not have to be conducted in a large-scale field trial setting by the publisher. Many other alternative approaches are available.

7. Publishers should develop a total support system for authors as they conduct both pre-adoption and post-adoption LVR's. Such support could include setting up try-outs with students, analysis of data, record keeping, and preparation of the LVR reports.

The LVR reports are currently reviewed by the textbook selection councils. Each council must certify that the reports meet the requirements of the legislation. During one council's discussion of an LVR report during the Fall of 1985, it appeared that the report was going to be rejected, thus eliminating any chance of the text making the adoption list. One member of the committee asked how they could reject the text on the basis of the LVR report when they all knew that the text was much better than some of the texts that had already been adopted. The council member was correct. The ultimate goal of the process is to get the best textbooks into use in the classrooms, not to

insist that a particular developmental procedure is employed. Therefore, it seems only reasonable that, if the publishers would prefer not to adopt the recommendations made above, then the Department of Education should proceed with this suggestion:

Propose legislation that requires each publisher to provide, for each textbook which is offered for adoption, written proof that the text is effective with learners. The standards for what shall constitute proof of effectiveness shall be determined by the Department of Education.

Perhaps this is what the Legislature of Florida should have said 10 years ago.

Table 1

LVR Reports Submitted to Florida DOE for 1985-86 Adoptions

Content Areas	No.of Publishers	No.of Reports
Mathematics	18	42
Biological Sci.	14	34
Physical Sci.	10	18
American Soc. Stdy	24	51
World Soc. Stdy	19	31
Business Ed.	8	83
Marketing Ed.	2	15
Industrial Arts	5	32
Industrial Educ.	3	15
Home Economics	8	31
Health Occupations	1	4

Total number of reports received 356

Total number of publishers submitting reports 42